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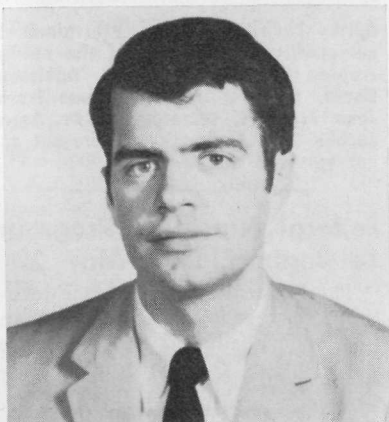
# Record

U. S. DEPARTMENT OF  
HEALTH, EDUCATION, AND WELFARE

April 25, 1972  
Vol. XXIV, No. 9

NATIONAL INSTITUTES OF HEALTH

## Dr. C. Hanson Is Named Special Projects Branch Chief, Program Analysis



Dr. Hanson has recently written or co-authored two articles, "Drug Surveillance for Adverse Reactions," and "Quality Control and Medical Information Systems."

Dr. Charles Hanson has been named chief of the Special Projects Branch, Office of Program Analysis, in the office of Dr. Thomas J. Kennedy, Associate Director for Program Planning and Evaluation.

Dr. Hanson comes to NIH from the Health Services and Mental Health Administration where he was chief of the Health Applications Section, Office of Systems Management.

He received his B.A. in 1964 and M.D. in 1969 from Harvard University.

From 1967 to 1968, Dr. Hanson was a special student in the Sloan School of Management, Massachusetts Institute of Technology.

### Background Given

While there, he studied operations research and systems design, information technology including comparative programming languages and systems programming, and managerial mathematics and model building.

As part of a Sloan project, in 1968, Dr. Hanson helped develop an information system for the Beth Israel Hospital.

He was also a research assistant with the Laboratory of Computer Science, Massachusetts General Hospital, from 1967 to 1969.

(See DR. HANSON, Page 6)

## Dr. H. Woolley Appointed As First NIH Economist

Dr. Herbert B. Woolley has been named the first NIH Economist in response to a pressing need to deal with problems of resource allocations and to consider the relevancy of economic principles to the health field.

Dr. Woolley will apply the techniques of economic analysis to assist policy development and program decisions at NIH, and develop econometric models to explain alternative resource allocation decisions in biomedical research.

### Analyzes Cost Benefits

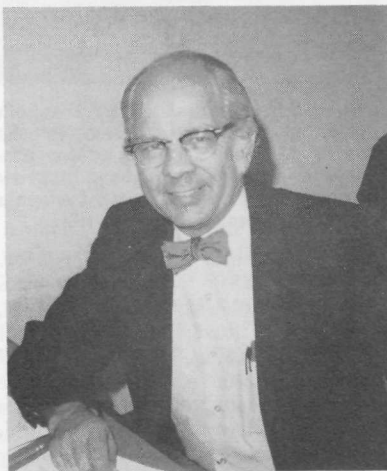
Also, he will apply cost benefit analysis to NIH research programs, and help design information and data systems to provide reports required for improved decision-making at NIH.

In addition, he will serve as economic advisor to Dr. Robert Q. Marston, NIH Director, and will represent NIH in inter- and intra-agency meetings and non-governmental forums.

Since September 1971, Dr. Woolley served with the Supporting Assistance Bureau of the Agency for International Development as a senior economic advisor.

He spent 27 months in Vientiane, Laos, with the U.S. Aid Mission as chief of Economics Work and sen-

(See DR. WOOLLEY, Page 6)



Dr. Woolley is best known in academic circles for his work at the National Bureau of Economic Research on the inter-area pattern of world trade and payments flows.

## Drs. John Seal and Seymour Kreshover Are Honored at DHEW Awards Ceremony



At the reception, Dr. Seal (l) and Dr. Kreshover display their award certificates presented to them by Secretary Richardson. The researchers were lauded for studies and achievements in their respective fields.

Secretary Elliot L. Richardson presented honor awards to two NIH staff members at the DHEW Annual Honor Awards Ceremony held April 14 in the auditorium of the Administration Building, Social Security Administration, in Baltimore.

Dr. John R. Seal, Scientific Director, National Institute of Allergy and Infectious Diseases, received the Distinguished Service Award; it is the highest honor given to civilian employees at HEW.

Dr. Seymour J. Kreshover, National Institute of Dental Research, was given the Distinguished Service Medal. That award is presented to Commissioned Officers whose services and achievements merit HEW's highest recognition.

### Achievements Cited

Dr. Robert Q. Marston, NIH Director, assisted the Secretary in presenting the certificates, medals and emblems to the award winners.

Dr. Seal was cited for "his extraordinary ability in directing complex intramural and collaborative biomedical research programs and in implementing targeted efforts in hepatitis, respiratory diseases, and cholera."

Dr. Kreshover was honored for "his outstanding leadership to understanding and control of oral diseases, broadening the scientific base

(See DHEW AWARDS, Page 4)

## Search Committee Named By Marston to Consider Successor to DBS Director

A search committee to consider a successor to Dr. Roderick Murray, Division of Biologics Standards Director, who will reach mandatory retirement age in August 1973, has been appointed by Dr. Robert Q. Marston, NIH Director.

When announcing the seven-member committee, Dr. Marston stressed the need to initiate plans for predictable changes well in advance.

"Dr. Roderick Murray is a man of outstanding scientific ability said Dr. Marston. "We cannot afford a hiatus in DBS leadership.

"With this consideration in mind, and with the full concurrence of Dr. Murray, NIH has established a search committee for his successor and it has already begun its work."

The search committee includes:

Dr. John F. Sherman, NIH Deputy Director; Leon M. Schwartz, NIH Associate Director for Admin-

(See SEARCH COMMITTEE, Page 4)

# the NIH Record

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## NIH Television, Radio Program Schedule

### Radio

#### DISCUSSION: NIH

WGMS, AM-570—FM Stereo-103.5—Friday about 9:15 p.m.

April 28

Dr. Jacob Brody, NINDS  
Subject: Epidemiology

May 5

Dr. Nathan Watzman, DPHPE  
and  
Dr. James E. Bates, Am. Pod. Assn.  
Subject: National Foot Health Week

Interview during intermission,  
Library of Congress Concerts.



Dr. Jacob Brody (r), chief, NINDS Epidemiology Branch, discusses radio interview plans with Win Clearwater of WGMS. He will talk on Friday, April 28, between 9 and 9:15 p.m. about his work on Guam and his interview with the World War II Japanese soldier who hid there for 28 years living on fish and potentially poisonous plants.

## Computer Resources Survey Conducted by Army Agency

A study of the management of computer resources at NIH will be conducted by the Army Management Engineering Training Agency. The study has been requested by the Office of the Director, NIH.

A team, headed by Fred Svec, AMETA, will conduct interviews at NIH during the next 3 months.

A form—the Computer Resources Survey—was distributed last week. Answers to the questions on that form will also be evaluated in the over-all study.

Employees who feel their work will be improved through the use of computers may also fill out the survey and return it to the AMETA Study Team. Their address is included on the questionnaire.

Employees who wish to take part in the study but have not received the form, may call Barbara Bynum, Office of Management Policy, Ext. 64603, for a copy.

## Dr. Richard Lee Dies in N.Y., NIH Researcher From 1949-53

Dr. Richard E. Lee, a former researcher at NIH, died on April 13 in New York. He had been chief of the National Heart Institute's Peripheral Vascular Group from 1949 to 1953. He also served as a PHS surgeon from 1952 to 1953.

Dr. Lee was physician-in-charge of New York Hospital's high blood pressure clinic, and assistant professor of Clinical Medicine at Cornell University Medical Center.

## Clinical Center Begins New Type of Training For Physician's Assistant

A new type of training program for physician's assistants was recently initiated at the Clinical Center on a trial basis.

Students in the pioneering Physician's Associate Program at Duke University are satisfying part of their 15-month clinical rotation requirement by working for one month at the Clinical Center.

Two students have completed their training here. During February David Lee was assigned to the National Heart and Lung Institute, and Dennis O'Dell worked with the National Cancer Institute in March.

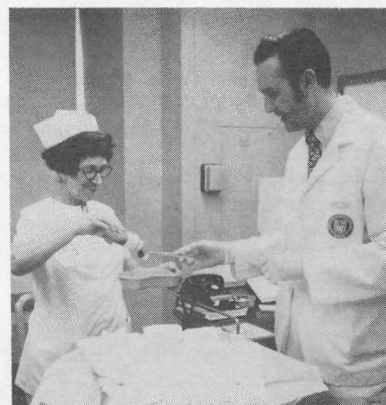
Two more students, Emmett Noll and Richard Davidson, will be arriving before July.

The students are assigned to staff physicians and are directly responsible to these physicians for the clinical practices and functions they perform in the CC.

Under a physician's supervision, they perform bone marrow aspirations, liver biopsies, lumbar punctures, and physical examinations, and assist in peritonoscopy.

They also start intravenous fluids, draw blood for lab studies, take patients' histories, follow the patient's daily progress, etc.

In addition, physician's assistant students attend rounds



Dennis O'Dell is assisted by Elizabeth McGlynn, a practical nurse in the Cancer Nursing Service, as he prepares a patient for a bone marrow aspiration. He worked on the Leukemia and Solid Tumor Services at NCI.

and patient and staff conferences.

Before being admitted to the 2-year Duke University program, candidates must be high school graduates, take the verbal and math portions of the Scholastic Aptitude Tests, and have previous experience in the health field, with at least 2,000 hours involving direct patient contact.

After graduation, they will relieve or assist the physician in the important but more routine tasks in patient care.



Danny Thomas, popular entertainment personality and member of the newly created National Cancer Advisory Board, gets the royal welcome from Jean Everhart, secretary to Dr. Leon Jacobs. Mr. Thomas' ever present cigar survived the encounter.

## Federal Education Program To Begin Classes May 22

The Federal After-Hours Education Program is offering more than 100 undergraduate and graduate level courses for the summer session. Classes will begin May 22.

The College of General Studies, George Washington University, offers courses leading to B.S. and M.S. degrees. Participants seeking self-improvement courses may enroll as non-degree students.

The Government Employee Training Act of 1958 gives Federal agencies broad authority to pay tuition cost and other fees related to present or anticipated job requirements.

All courses are 3 semester hours and tuition is \$60 per hour.

Registration will be held in Conference Rooms A, B, and D, Department of Commerce Building, 14th St. and Constitution Ave., N.W., from 10 a.m. to 3 p.m. on Friday, May 19.

For further information regarding the program, call Robert W. Stewart, Jr., G.W.U., at 676-7018 or 7028.

## Bache Free Clinic, Bethesda, Needs Volunteers for Staff

Volunteers for the Bache Memorial Bethesda Free Clinic may contact John Eubank in the daytime at the Free Clinic number—656-3222, or in the evening at home—942-3519.

The clinic is in the basement of St. John's Episcopal Church, 6701 Wisconsin Ave., Bethesda. It is open on Sunday, Tuesday and Thursday evenings from 7 to 10 p.m.



## A Fellowship Program Aids Minority Schools To Train Researchers

A new program by the National Institute of General Medical Sciences will help minority schools train greater numbers of health research scientists and teachers.

This special program will provide fellowships to further the research and teaching roles of biomedical science educators affiliated with colleges and universities serving predominantly ethnic minority students.

Funds will also be made available on a competitive basis to assist these institutions in bringing outstanding scholars to their campuses to aid in the development of research activities and to teach in fields basic to medicine.

### 95 Colleges Eligible

Institutions eligible for the awards, and their sponsored faculty members and students working for the Ph.D. degree include the Nation's 95 colleges founded for blacks.

Also, there are 30 additional 4-year schools whose enrollment includes a majority of American Indian, Mexican-American, Puerto Rican, Hawaiian, and other racial descents.

Information and guidelines to apply for funds under the program are being supplied to officials of these institutions.

The NIGMS plans initially to provide funding up to \$500,000 for the new program, known as the Minority Access to Research Careers (MARC) Program.

The Institute's effort complements another NIH program administered by the Division of Research Resources. The Division's program termed the Minority Schools Biomedical Support (MSBS) Grant Program, awards funds to strengthen institutional biomedical research capability.

Both programs constitute a major effort by the Bureau of Health Manpower Education to recruit members of minority groups into health careers.

### Need Cited

According to Dr. DeWitt Stetten, Jr., Director of NIGMS, these special actions by NIH are urgently needed to help correct the extreme imbalance in the United States of the numbers of minority group health scientists and teachers with doctoral degrees.

Studies show, he noted, that, while approximately 11 percent of the U.S. population is black, only 2 percent of all American physicians are black.

Other studies have shown that for all persons in the country (See MINORITY FELLOWSHIPS, P. 5)

## Fresh Views of Young Council Members Contribute to More Effective Programs



The time for informal discussions among council members is during the pause for refreshments. Dr. Christian (l) discusses the trend in nurse training programs with her conferees, and Dr. Sloan points out to NIAID council science researchers the validity of economics in relation to biomedicine.

About 14 young persons—all under 30—from many parts of the United States are now serving on NIH public advisory councils.

The young members, who attend meetings on the campus three or more times a year, are undergraduate and graduate students, faculty members not too far removed from their own student days, and others starting professional careers with



Mr. Johnston believes that speaking with members at the council meetings may help him decide between clinical medicine versus research.

private research organizations or in public life.

Dr. Robert Q. Marston, NIH Director, who is the chairman of each B/I/D advisory council, lauded the participation of the young council members and their contributions to the meetings.

"We are delighted to have these younger citizens contributing to our councils' work. Their fresh viewpoints will contribute immeasurably to more effective programs. Their service provides an opportunity for NIH and the young members to learn from each other," Dr. Marston said.

Participation of the new members already is bringing a "new look" to NIH councils, whose members typically have been drawn, over the years, from persons with substantial careers behind them in science, the academic world or public affairs.



Comments of typical new council members, interviewed during council meetings in recent weeks, indicate the character of their interest in their responsibilities.

One of the young members, Dr. Frank A. Sloan, National Advisory Allergy and Infectious Diseases Council, is an assistant professor of Economics at the University of Florida in Gainesville. Dr. Sloan is one of the oldest of the younger members—his age is 29.

His special interest is medical economics. He is used to participating in government conferences, having served as a consultant to HSMHA's Office of Program Planning and Evaluation.

Dr. Cora Le Ethel Christian, who received her medical degree from Jefferson Medical College last June, is a member of the National Advisory Council on Nurse Training.

Dr. Christian is now interning in Freedman's Hospital in Washington, D.C. She was born in St.

(See YOUNG COUNCILLORS, Page 7)

## Dr. Paul MacLean Given Karl S. Lashley Prize For Brain Center Work

Dr. Paul D. MacLean, National Institute of Mental Health, was awarded the Karl Spencer Lashley Prize by the American Philosophical Society.

Dr. MacLean, who is chief of the Laboratory of Brain Evolution and Behavior at the NIH Center in Poolesville, received the award, which includes an honorarium of \$2,000, at the society's annual meeting in Philadelphia on April 21.

It was presented to him for sustained leadership in research on evolution of the brain and nervous system, particularly the brain centers which Dr. MacLean identified in 1952 as the limbic system.

He joins a group of 12 world-renowned specialists in brain and nervous system investigation who previously received the prize.

Dr. MacLean delivered the Mider Lecture at NIH this past February (See the NIH Record, Feb. 1, for past achievements and awards).

The American Philosophical Society, founded by Benjamin Franklin, is the oldest organization of its kind in the United States.

### Membership Listed

Its membership is limited to 500 scientists, men and women of other academic pursuits, and philanthropists.

Members include 94 Nobel laureates, 45 of whom were members of the Society before receiving the Nobel Prize; past membership includes such names as Robert Fulton, Louis Pasteur, and Thomas Huxley.

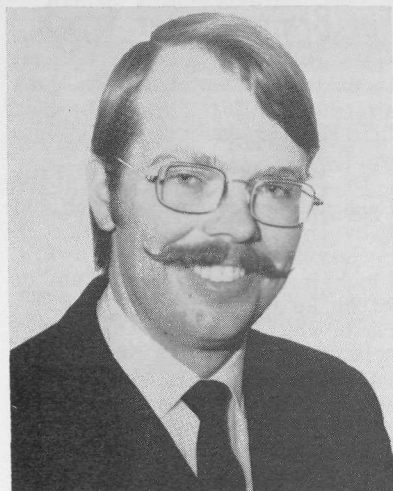
The Lashley Fund was established in 1957 by a gift from the late distinguished neuropsychologist Karl Spencer Lashley.

Income from the Fund is used for the award which is made from time to time for significant work in the field of neurobiology.



SAVINGS BOND DRIVE—Representatives of B/I/D's plan the annual NIH Savings Bond Drive. Dr. Robert Q. Marston, NIH Director, is chairman. Dr. Carl G. Baker (c), NCI Director and vice chairman of the drive, announced that it will run from May 1 to June 8. Michael M. Agunsday, of the U.S. Treasury Department (center right), explained procedures for the drive and described tax advantages in buying bonds through the payroll deduction plan.

## Douglas Christian Wins APhA's Annual Award



Mr. Christian was honored at the First Session of the Military Section at the APhA meeting held in Houston.

Douglas G. Christian, a pharmacist with the Patient Care Pharmacy at NCI's Baltimore Cancer Research Center, will receive the Eighth Annual Award of the American Pharmaceutical Association for a paper, "Drug Interference with Laboratory Blood Chemistry Determinations."

He will deliver the paper at the APhA annual meeting in Houston where he will also be presented with a plaque and \$500 honorarium.

The award is sponsored by Eli Lilly and Company as an incentive for publication of interesting and innovative ideas in the paramedical service fields.

Mr. Christian's award-winning paper was cited as "very timely and helpful to other members of the pharmaceutical profession."

## DHEW AWARDS

(Continued from Page 1)

of dental research, and for setting a pattern of dental research and education which is being followed worldwide."

The Secretary also recognized two NIH scientists as recipients of another major award given during the past year—the Arthur S. Fleming Award.

### Other NIH'ers Honored

Dr. Jacqueline Whang-Peng, National Cancer Institute, was honored for her outstanding contributions to cytogenetic research aimed at elucidating cellular control mechanisms in human cancer.

Dr. Richard M. Asofsky, National Institute of Allergy and Infectious Diseases, was cited for his leadership and significant contributions to immunologic research and experimentation. Dr. Asofsky was unable to attend the ceremony as he was at the FASEB meeting in Atlantic City.

After the ceremony, officials, and award recipients and their families attended the Secretary's reception.

### Drs. Hicks and Brown to Head Two HEW Women's Programs

Secretary Elliot L. Richardson announced the appointments of Dr. Florence J. Hicks as Director of HEW's Women's Action Program and Dr. Vera Brown as Director of the Federal Women's Programs.

The allergy and drug record form, the IV adjuvant service, unit dose system, and medication record have been studied by a number of workers both within and outside the Government.

Some of these systems are being adopted in other hospitals.

## Dr. M. Cummings Calls For 'Clarity, Precision' In Medical Literature



Dr. Cummings (l) congratulates Rep. Rogers on receiving an honorary Doctor of Science degree in recognition of the representative's leadership in national health legislation.

Dr. Martin M. Cummings, Director of the National Library of Medicine, recently spoke at the dedication of the Louis Calder Memorial Library of the University of Miami School of Medicine.

He said that English "is fast becoming the standard language of science, we have a responsibility to learn how to speak and write English properly ourselves."

Dr. Cummings called for "more attention to clarity and precision of expression" in medical writing. One well written account of research in one good journal is all that should be expected of a scientist, he noted.

### Rare Book Donated

A 1537 edition of *The Aphorism of Hippocrates, With a Commentary by Galen* was donated to the library's rare book collection by Dr. Cummings.

The modern three-story library was financed with a construction grant of \$1 million through the Medical Library Assistance Act and a matching amount from the Louis Calder Foundation.

Paul G. Rogers (D-Fla.), chairman of the House Interstate and Foreign Commerce Committee's Subcommittee of Public Health and Welfare, gave the principal address.

### Reprints Now Available at DRG

The DRG Information Office is making available reprints of "Who reads your project-grant application to the National Institutes of Health?" by George N. Eaves in *Federation Proceedings* 31: 2-9, 1972.

DRG's Information Office is in the Westwood Building, Room 433, Ext. 67441.

## Using Drug Stimulants For Children With MBD Not Considered Addictive

A majority of scientists participating in a recent conference on minimal brain dysfunction have pointed out that drugs administered to children with the disorder does not predispose them to addiction during adolescence.

The stimulant drugs most widely used in treating primary school children with MBD are amphetamine and methyl-phenidate hydrochloride. The drugs may be administered for 6 months to 5 years in order to subdue the symptoms.

More than 800 educators, clinicians, and behavioral scientists attended the conference which was sponsored by the National Institute of Child Health and Human Development, the National Institute of Neurological Diseases and Stroke, and the New York Academy of Sciences.

Conference researchers declared that drug treatment for MBD has been shown to be effective in reducing symptoms which include hyperactivity and lack of concentration; addiction and euphoria almost never develop.

### Identification Difficult

The scientists also emphasized that not all children with the disorder are treated with drugs. Because diagnosing the dysfunction is difficult, a common definition of MBD and accurate means for identifying it was one of the major points of discussion.

Other conference topics included environmental and hereditary influences on MBD, epidemiological factors, and future research.

The New York Academy of Sciences plans to publish the proceedings of the conference; the publication is expected to be ready in about 9 months.

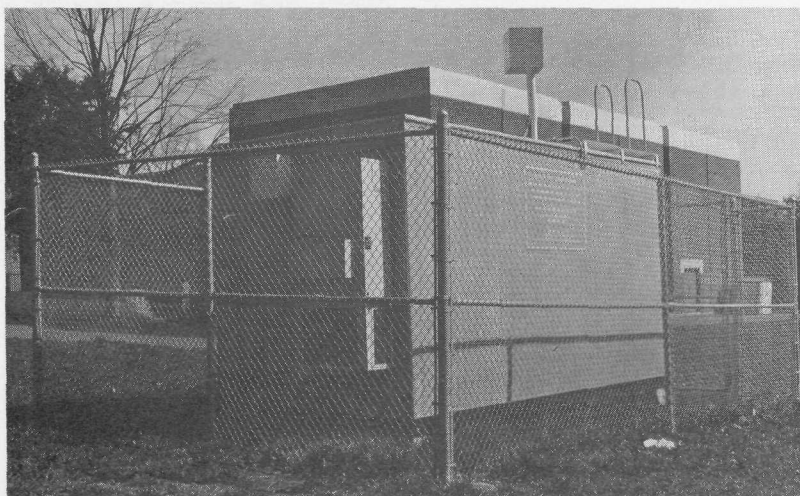
## SEARCH COMMITTEE

(Continued from Page 1)

istration; Dr. Dorland J. Davis, NIAID Director; Dr. Robert M. Chanock, chief, Laboratory of Infectious Diseases, NIAID.

Also, Dr. Carl M. Leventhal, Assistant to the NIH Deputy Director for Science; Dr. Frank J. Rauscher, Jr., Scientific Director for Etiology, NCI, and Peter Hutt, General Counsel, Food and Drug Administration.

In addition, Dr. Marston said the committee would welcome suggestions of possible candidates. These should be addressed to Dr. Sherman, chairman of the search committee.



One of the eight special air monitoring stations used by the state of Maryland to test air quality is located near Bldg. 34 (background). Each station—linked by telemetry to the central data processing and control station located in the Maryland Bureau of Air Quality Control Headquarters in Baltimore—measures air quality parameters such as sulfur oxides, oxides of nitrogen, ozone, and total particulates. The Environmental Services Branch, DRS, has arranged for an "open house" to permit those interested to visit the trailer this Thursday, April 27, between 1 and 3 p.m.





**"We can't believe we saved the whole thing." Employees in DCRT's Computer Center are pleased that campus personnel cooperated by contributing leaves to the tree outlined on an 8-foot chart that had been "planted" in the Center. Each leaf represents 30 pounds of paper to be recycled. The 1000th—and the last—leaf is placed by Margaret Pool, NCI. To honor the occasion tomorrow (April 26), at 10 a.m., a live Kwanzan cherry tree will be planted at the southeast corner of Convent Road and South Drive (between Bldgs. 30 and 37). Employees are invited to the planting.**

## MINORITY FELLOWSHIPS

(Continued from Page 3)

holding doctoral degrees, only one percent are black, and in science less than one-quarter of one percent of those who hold the Ph.D.'s are black (600 black Ph.D.'s compared to a national total of more than 250,000).

Dr. Stetten further noted that the percentage of doctorates, both M.D. and Ph.D., held by members of other ethnic minority groups were still fewer in number and lower than for blacks in comparison to their proportion in society.

The MARC Program was formulated after a year-long period of visits and discussions by Institute staff with the deans, science department heads and faculties of some 30 different minority schools.

### Dr. Miller Is Director

Dr. Charles A. Miller, associate chief of the NIGMS Research Training Grants Branch, is the MARC Program director.

Its initial development was assisted by Dr. Geraldine P. Woods, a consultant to NIGMS and formerly a member of the Institute's National Advisory Council.

She is a trustee of Howard, a member of the National Board of Rights, and a vice president of the Community Relations Conference of Southern California.

## Substitute Sight System for the Blind Can Transmit Pictorial Images via Skin

By Bonnie Friedman

Children often play a game of tracing letters on the hand of a blindfolded friend, hoping that the friend will understand the message. For these children it is just a game. But through the efforts of California scientists, whose work is supported in part by a National Eye Institute grant, the theory behind that game is providing new hope for the Nation's blind.

Drs. Paul Bach-y-Rita and Carter C. Collins at San Francisco's Smith-Kettlewell Institute of Visual Sciences have developed for the blind a substitute sight system that transmits pictorial images via the skin.

The Tactile Vision Substitution System (TVSS) uses the images captured by a television camera to activate a series of stimulators arranged on a grid and positioned over the skin of the abdomen.

### Practice Needed

With training and practice, a sightless person learns to translate these painless impulses automatically into crude spatial images within the brain.

Speaking at a recent NEI seminar, Dr. Bach-y-Rita, who is Associate Director of the Smith-Kettlewell Institute, explained why the TVSS can work.

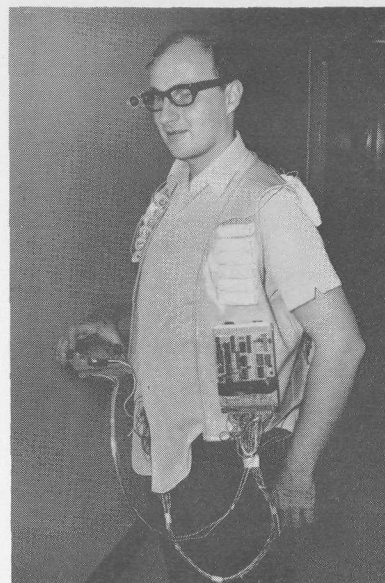
"The brain already has the ability to pick up sensations from the skin because it has receptors laid out in a two-dimensional pattern," he explained. "It is the only organ besides the retina that is arranged in this way."

The TVSS is also possible because of the unusual nature of the brain. "The brain is capable of recovering from a number of insults to it. It is even capable of reversing the results of long-term deprivation if the proper input is restored," Dr. Bach-y-Rita said.

### Equipment Explained

The nature of the brain and skin, however, are not the only factors that have made the vision substitution system possible. Long and dedicated research has gone into the project. Dr. Bach-y-Rita and his associates have been working on TVSS for 8 years.

They have progressed from using



The TVSS includes a minute TV camera worn at the waist or shoulder and a one-ounce light-gathering lens attached to the frame of an ordinary pair of glasses. The lens picks up pictorial information which is converted to electrical signals. These activate the electrodes on the belt positioned over the abdomen. The result is a massage-like stimulation of the skin, producing a sensation of what the camera has recorded.

400 pounds of equipment in conjunction with a converted dentist chair to utilizing a 4-pound miniature television system.

In addition, they have advanced from the original nine electrodes on a grid to 256 points with 32 lines. They are currently developing a system 4 times that size to allow even greater detail to be transmitted.

### Lines, Shapes Discerned

A blind person learning to use the TVSS begins simply. He is first presented with a series of lines, then moving lines, and then simple geometric shapes.

Later, more complex figures and letters of the alphabet are presented to him. Eventually, the student is able to discern roughly human faces, position of figures, and length of hair.

According to Dr. Bach-y-Rita, a patient can gain control of the camera in 15 to 20 minutes. After 10 to 15 hours of practice, he is no longer aware of the electronic stimulation to his skin and begins actually to "see" the images within his brain.

Dr. Bach-y-Rita emphasized that the TVSS is still in the experimental stage. A person using the sys-

tem can only receive a limited amount of information at a time. The result, therefore, is a very crude and segmented representation of an object.

The California team has found the substitute vision system most successful for educational purposes. It has been used to teach students who are congenitally blind and have had no other exposure to the information being presented.

One area in which they have been able to train all of their subjects is spatial perspective.

### Objects Look Different

"The blind have to learn that objects look different than they feel," the doctor explained. "They must be taught both size and space perception."

Progress in learning to use the system does not correlate with intelligence, but rather with manual dexterity. The investigators have found that those most adept in learning to use the machine are students studying mechanics and engineering.

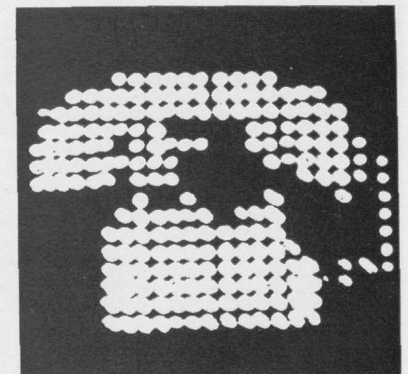
"Education," according to Dr. Bach-y-Rita, "is the first area of real practical benefit because we can eliminate all extraneous information and allow the subject to get the information we want him to get."

The TVSS is not yet mobile; for instance, it has not been used effectively out-of-doors because of difficulty in controlling lighting, but this is not believed to be a serious problem.

### Hope for Further Achievement

The next step in the evolution of the TVSS, Dr. Bach-y-Rita believes, will have to be an increase in the amount of information received at one time. This is especially important in areas such as vocational training.

The investigators would like to achieve transmission to their students of a 20-degree angle of perception. This, Dr. Bach-y-Rita stresses, is necessary before the TVSS can fulfill the needs for which it was developed.



Pictorial facsimile of a telephone as it is "seen" by a person via the TVSS can also be picked up by the television monitor so researchers can check the patient's response.



## Health Educators Urge Navajos to Establish Center to Train Indians

A report on a study urging the Navajo Tribal Council to establish on its reservation a center to train Indians in medicine and other health professions has been issued by a team of prominent health educators.

The 4-month study was undertaken in response to a resolution sent to HEW Secretary Elliot Richardson by the Council.

It expressed the need for "facilities to train Indian medical personnel, within an Indian reservation, for the benefit of all American Indians."

The team was selected by Dr. Merlin K. DuVal, HEW Assistant Secretary for Health and Scientific Affairs, and Dr. Kenneth M. Endicott, Director of the Bureau of Health Manpower Education, in cooperation with the Indian Health Service.

They urged the Council to establish a Department of Health that would be responsible for:

- Coordinating current health manpower training activities on the reservation.
- Planning health and health manpower training facilities.
- Planning for a Center for Health Professions Education.

Dr. George Blue Spruce, director of the Office of Health Manpower Opportunity, BHME, served as a member of the study team.

## ABC Shows 'Life, Death, and the American Woman'

An intensive look at certain major health problems that can affect American women will be telecast in a one-hour documentary, "Life, Death, and the American Woman," over the ABC-TV network and WMAL (Channel 7), Thursday, April 27, at 10 p.m.

Actress Patricia Neal, who overcame a near fatal series of strokes 7 years ago, will narrate the spe-

## DR. WOOLLEY

(Continued from Page 1)

ior advisor to the Country Team. About one-half of his professional career has been Federal service and the other half in private industry.

Dr. Woolley's business career has included 3 years with the Cal-Tex Oil Corporation as the manager of the Economics Department. He has also worked as a self-employed consulting economist to a number of private businesses and Government agencies.

His major fields of work include international finance and payments, petroleum and mining, sea and air transport, and problems of monopoly and competition.

Outside the Government, Dr. Woolley spent 8 of 14 years as a research scholar and teacher with the National Bureau of Economic Research in New York City, the Graduate School of Business Administration of New York U., and Harvard.

The remaining 6 years were spent as a business economist and economic consultant.

Dr. Woolley received his A.B. from Stanford University in 1939, and his M.A. in 1943 and Ph.D. in 1947 in Economics from Harvard University.

He has written several papers, book reviews, journal articles, and a book, *Measuring Transactions Between World Areas*, published in 1966 for NBER by Columbia U. Press.

cial, produced by Alan Landsburg Productions of Hollywood.

The General Clinical Research Centers, which are supported by the Division of Research Resources, cooperated with the producer.

The medical experts appearing in the film are mainly program directors of General Clinical Research Centers and medical scientists using the centers.

## Susie Coelho Selected In D.C. Metro Pageant As 'Miss Photogenic'



Susie, who ran around frantically for days before the Metro contest looking for a gown and hot pants outfit, enjoys the contrasting calm of a walk on the campus.

With a captivating smile and matching personality, Susie Coelho clearly stands out from the ordinary.

Susie, a part-time employee in the National Heart and Lung Institute, recently entered the Miss Metro Pageant, held in Washington, D.C., to further her modeling career.

Immediately before the judges selected the five finalists for the contest, they announced the awards for Miss Congeniality and Miss Photogenic.

"Miss Photogenic is Susie Coelho from Bethesda . . ." the announcer said.

"It came as a complete surprise to me. I did not expect it at all. I knew they had an award for the most congenial, but not for photogenic—I must not have been listening," she explained.

"The pageant was the best thing that could have happened to me as far as setting up contacts for modeling.

"I even got an offer to sing—but I can't sing," Susie commented.

She owes her interest in modeling to her mother. "She entered me in the Miss Teenage Maryland Contest when I was 14." Susie was a finalist in the competition, but she didn't enter any others until the Miss Metro.

A graduate of Walter Johnson High School, Bethesda, in 1971, Susie is finishing her first year as a French major at American University.

She does not intend to put her education to use right away. "I want to take my modeling career as far as possible. I want the education . . . to fall back on when I

## Dr. K. Bischoff Awarded Ebert Prize for 1972

Dr. Kenneth B. Bischoff, Walter R. Read Professor of Engineering and Director of the School of Chemical Engineering at Cornell University, has won the 1972 Ebert Prize of the Academy of Pharmaceutical Sciences of the American Pharmaceutical Association.

Dr. Bischoff is a consultant for the Chemical Engineering Section of the Biomedical Engineering and Instrumentation Branch, Division of Research Services.

The Ebert Prize was first awarded in 1874. It honors the senior author of the best scientific report published during the preceding year in the *Journal of Pharmaceutical Sciences*.

Also to be honored are the co-authors Dr. Robert L. Dedrick, chief, Chemical Engineering Section, BEIB; Dr. Daniel S. Zaharko, Laboratory of Chemical Pharmacology, NCI, and James A. Longstreth, formerly with BEIB, now a doctoral student at Johns Hopkins University.

The winning article, "Methotrexate Pharmacokinetics," describes a pharmacokinetic model which predicts detailed tissue distribution and excretion of methotrexate in several mammalian species including man.

## DR. HANSON

(Continued from Page 1)

Dr. Hanson served as a research medical officer (1969-70) with the Bureau of Drugs, Food and Drug Administration, monitoring the systems development of adverse reaction information systems.

He is currently attending Georgetown University Law Center Evening Division and serving as executive editor of *Res Ipsa Loquitur*, the GU review of law and the public interest.

## William Rice Wins \$1000 Prize

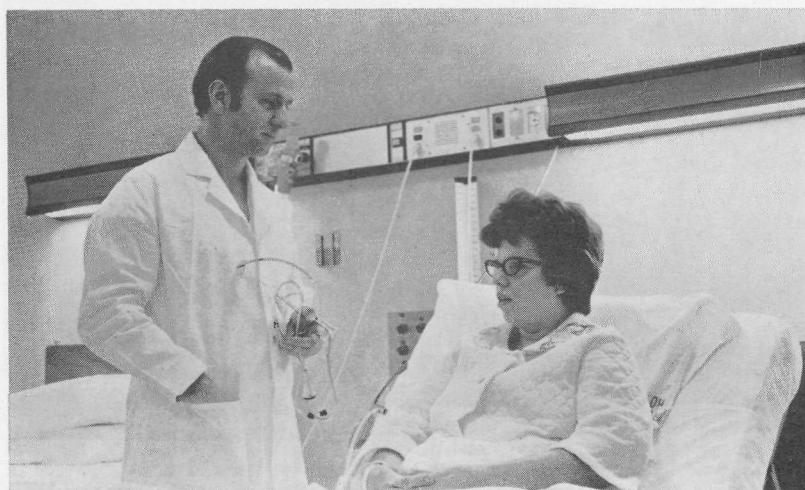
William Rice, science editor of the *New York Daily News*, recently won a \$1,000 prize from the Arthritis Foundation for his series of newspaper articles called "Arthritis: A Very Special Hell."

Much of the material for Mr. Rice's series was supplied by the National Institute of Arthritis and Metabolic Diseases Information Office and included interviews with Dr. John Decker, chief of the Arthritis and Rheumatism Branch, and other staff members.

need it," she said.

Her ambition is to eventually become a model for clothing ads in magazines.

Susie also models part-time for a Baltimore agency—in runway, tea room, and advertising modeling, as well as make up consultation.



Dr. Jacques F. Roux, program director, Cleveland Metropolitan General Hospital's Perinatal Clinical Research Center, consults with an expectant mother at the center where the filming was done for the special.



## Scientists Discuss Control of Movement And Posture at FIC, NINDS Workshop

Control of movement and posture was discussed by noted scientists in neuromuscular and brain research during a workshop sponsored by the Fogarty International Center and the National Institute of Neurological Diseases and Stroke.

Dr. Ragnar A. Granit, Fogarty Scholar and Nobel Prize winner, was chairman of the workshop. Dr. Granit was awarded the Nobel Prize for his work on muscle spindles and their motor control.

Dr. Karl Frank, chief of the NINDS Laboratory of Neural Control, served as co-chairman.

Researchers from America and eight foreign countries discussed the clinical aspects of neuromuscular disease; control of movement by the brain; muscle, brain, and spinal cord changes preventing movement, and how visual information gets to distal muscles.

### Relationship Is Crucial

Understanding the intricate relationship between nerve, muscle, and brain is crucial to both the treatment of movement disorders and to the possible development of artificial limbs and their direct control by the brain.

Dr. W. King Engle, chief of the NINDS Medical Neurology Branch, well-known for his clinical work with muscular disorders and his research in muscle chemistry, presented a paper showing how individual muscle fibers are selectively affected in various muscle disorders.

His research has shown that normal human muscle fibers are of two basic types.

In myotonic dystrophy, for example, he has found that there is a reduction in the size of Type I fibers and an increase in the size of Type II fibers, whereas in myasthenia gravis Type II fibers are reduced in size to a greater extent than Type I fibers.

These findings have obvious diagnostic value, but may also be the key to learning the underlying

ing causes of such disorders as myasthenia gravis and the muscular dystrophies.

Dr. Robert Burke, who is conducting related studies in the NINDS Laboratory of Neural Control, discussed his work relating chemical properties of muscle fiber types to the physiological action of the muscle fibers.

He has shown, for example, that fast-contracting fibers which also tend to fatigue quickly are driven by high quantities of glycogen, while slow-contracting fibers which are fatigue-resistant are low in glycogen but are richly supplied by capillaries which carry energy to these fibers.

These findings will eventually contribute to the understanding of diseased muscle and add to the knowledge of normal muscle function.

It is well known that the fast-contracting muscle fiber types are obviously useful for quick action, while the slow-contracting but fatigue-resistant type are useful when sustained muscle action is necessary.

### Studies Discussed

Dr. Ayub Ommaya, associate neurosurgeon of the NINDS Surgical Neurological Branch, stressed the importance of studying the traumatized brain to gain a better understanding of how the nervous system reintegrates following trauma.

Dr. John Van Buren, acting chief of the NINDS Surgical Neurology Branch, and Dr. Frank discussed the prospects and ethical aspects of direct brain control of artificial devices.

Dr. Frank stated that technology could be developed not only for assisting the brain to control artificial limbs but also for augmenting normal muscle movement, increasing an individual's capabilities.

He reported that some scientists have trained an animal to control the electrical activity of a single brain cell.

By electrically stimulating the muscle nerves directly, according to Dr. Frank, initially rapidly fatiguing muscle can be converted into a slowly fatiguing one, allowing for smooth graded contraction of the limb.

He also stressed the importance of using the built-in organization of the nervous system to achieve control of artificial limbs or possible reinnervation of damaged limbs.

Dr. Van Buren stated that while

## YOUNG COUNCILLORS

(Continued from Page 3)

Thomas, Virgin Islands, in 1947. Her future plans are undecided, she "may go home and practice," or stay in Washington and work in public health.

The council she is part of is one of the most youth-oriented of the NIH groups. Three of its members are students enrolled in nursing schools, appointed for one-year terms.

Dr. Christian extolled the work of the council after its recent meeting, and said she believes the meetings are contributing to development of effective guidelines for nurse training.

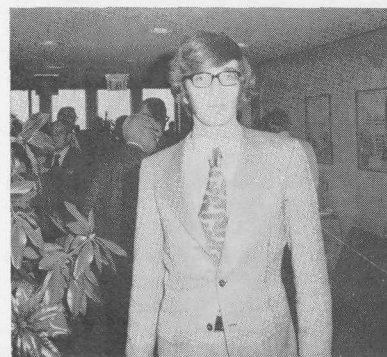
William H. Johnston, Jr., on the National Advisory Research Resources Council, is a first-year medical student at the University of Alabama Medical Center in Birmingham. He was born in 1949.

During his senior year at Auburn University, he was president of his medical fraternity. Under his leadership the fraternity sponsored several allied health programs.

"We tried to interest freshmen and sophomores who showed an initial interest in medicine but dropped out early, that there were other careers in allied areas. We pointed out fields in nursing, physical therapy, optometry, and opportunities as physician assistants," he explained.

Mr. Johnston was attending his first meeting at NIH. At this point in his career he is torn between "research and the clinical side."

Speaking with scientists during council meeting recesses may help

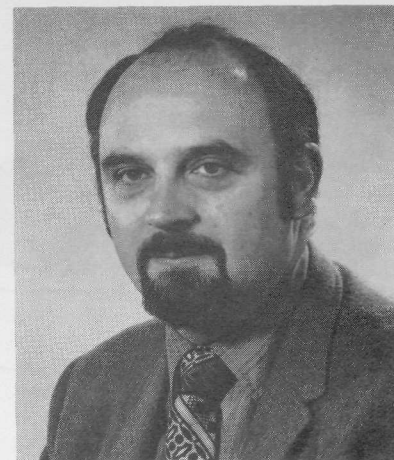


Mr. Garrett is waiting to hear from the admissions offices of medical schools. He just attended his first council meeting and has become interested in environmental health sciences research.

scientists legally have no authority to conduct research on human beings such research is vitally needed if we are to advance.

He added that perhaps new guidelines for basic brain studies in patients and normal volunteers should be established.

According to Dr. Van Buren two present procedures for studying the brain — during epilepsy surgery and stereotaxic surgery for Parkinson's Disease—are yielding important information.



Vinson R. Oviatt, chief, Environmental Services Branch, Division of Research Services, delivered "Environmental Engineering for a Thriving Society" at the recent Eminent Engineers lecture series at South Dakota State University, his alma mater. Mr. Oviatt also received a plaque in recognition of his achievements. He spoke on the relationship between the engineer, environment, and community.

the medical student decide that issue.

Wayne L. Garrett, born in 1950, a senior and chemistry major at Muhlenberg College, is on the National Advisory Environmental Health Sciences Council. He hopes to attend a medical school next year.

Mr. Garrett is interested in music, drama, journalism, and law. He has prepared news releases for a statewide news service, and law briefs while serving as a senior justice at college.

Two of the young members are on the Advisory Committee to the NIH Director. They are:

### Serves as Staff Attorney

Christine Denis Le Flore, born in 1945, a Howard University Law School graduate and a Yale Law School Graduate Fellow, is a staff attorney in Central Headquarters Unit, Neighborhood Legal Services, Washington, D.C. Michael Schatzlein, born in 1950, is a student at the Indiana University School of Medicine.

Other young members are:

David S. Packard, Jr., National Advisory Child Health and Human Development Council; Charles B. Van Vorst and Margaret L. Smith, National Advisory Public Health Training Council; Robert Portillo, National Advisory Dental Research Council, and Susan L. Norton, National Advisory General Medical Sciences Council.

Also, Richard E. Doyle, National Advisory Research Resources Council; John J. Whitehead, National Advisory Environmental Health Sciences Council; Miguel Montiel and Blair L. Sadler, National Advisory Allied Health Professions Council, and Letitia Peplau, National Advisory Council on Nurse Training.

### Holiday, Ramada Inns Offer Shuttle Service to Airports

Shuttle service between the Bethesda area, National, and Dulles airports will continue to be available through the Ramada Inn (formerly Governors House) and Holiday Inn.

Transportation to National is available from both inns without reservation at 10 minutes after each hour.

Service to Dulles is only obtainable at Ramada. Reservations must be made by calling the Greyhound Airport Service at 393-3060.



## G. Jarboe Heads Office Of Executive Secretariat

NIH has established within the Office of the Director, an Executive Secretariat whose responsibilities primarily concern managing correspondence including Congressional letters so that it is expeditiously and effectively processed.

The new office, responsible to the Director through the Associate Director for Administration, is directed by George Jarboe. His assistants are Rosemary Tobin, correspondence control officer, and Celeste Meininger, congressional correspondence officer.

The office, established at the request of Secretary Elliot L. Richardson, will also act as liaison with the Executive Secretariat of the Secretary at HEW, and other De-



Mr. Jarboe, on campus since 1959, came here as a management intern. He is a veteran of the U.S. Air Force and a graduate of the University of Maryland.

partment Executive Secretariats.

Other functions of the office include reviewing papers for clarity and timeliness, and assisting NIH components in developing documents.

Mr. Jarboe has been with NIH since 1959. He came here as a management intern from the Department of Defense where he served as an industrial analyst.

During his tenure here he has been with the Office of Personnel Management, and the Division of

## Soft Contacts May Allow Enough Oxygen To Reach Cornea With Prolonged Wear

Even with prolonged wearing of hydrophilic soft contact lenses, more than enough oxygen reaches the cornea to prevent oxygen starvation, according to research supported by the National Eye Institute.

Oxygen-starvation syndrome is sometimes the result of prolonged wearing of hard contact lenses. Therefore, they can be worn for only relatively short periods and must be removed before sleep.

Clinical experience now indicates that the hydrophilic lens apparently allows atmospheric oxygen to reach the cornea both through the lens and in the tears that flow under the lens.

The ability of the lens to transmit oxygen had not been quantitatively studied previously.

Because physical properties of lenses vary among manufacturers, NEI-supported investigators at the University of Florida and the Medical College of Wisconsin tested

three types of hydroxyethylmethacrylate hydrogel or soft plastic contact lenses and one type of silicone lens.

All four lenses tested supplied more than enough oxygen through the air alone to meet the cornea's needs.

In particular, the silicone lens transmitted oxygen more than four times faster than the most permeable hydrophilic lens.

### Silicone Almost Impermeable

No lens could transmit through water alone the amount of oxygen that the cornea needs. The silicone lens was shown almost totally impermeable to water and therefore apparently impermeable to tears also.

The investigators conclude that the oxygen-starvation syndrome observed with the methyl-methacrylate or hard contact lenses should not occur with use of hydrophilic lenses.

These findings by NEI grantees Drs. Dennis R. Morrison and Henry F. Edelhauser were reported in the January 1972 issue of *Investigative Ophthalmology*.

### Marston to Take Part in Panel Discussion at SAMA Meeting

Dr. Robert Q. Marston, NIH Director, will take part in a panel discussion at the annual meeting of the Student American Medical Association, to be held April 28-May 1, at the Biltmore Hotel in Los Angeles.

Dr. Marston and other panel members will discuss the Nation's Health Manpower Needs and How We are Responding to Them.

An election of national officers will also take place at the convention, and delegates will hold workshops dealing with SAMA projects.

## Dr. Leo Sachs Selected As Scholar-in-Residence



Dr. Sachs received his Ph.D. degree in 1951 from the University of Cambridge, England, and has been with the Weizmann Institute since 1952.

Dr. Leo Sachs, Meyerhoff Professor of Biology and head of the Department of Genetics at Weizmann Institute of Science, Israel, arrived on the NIH campus as a Fogarty Scholar-in-Residence April 12.

Dr. Sachs is known to the scientific community here through frequent visits.

He has gained recognition for his contributions in several fields—genetics, viral oncogenesis, and chemical carcinogens in cell culture.

His studies on carcinogenesis have been concerned with the mechanism of the transformation of normal cells into tumor cells by the DNA tumor viruses, polyoma, and simian virus 40, and by chemical carcinogenesis, and the reversion of tumor cells into normal cells.

His recent studies, which demonstrate equivalent alterations in the cell surfaces regardless of whether chemicals or viruses have been used to transform cells, have stimulated new efforts with chemical carcinogenesis.

As a Fogarty Scholar, Dr. Sachs will initiate and participate in seminars, present lectures, and collaborate with several laboratory groups through July.

Professor and Mrs. Sachs will reside in Stone House.

### Local Chapter of FPA Elects Dr. Alfred Coulombre President

Dr. Alfred J. Coulombre, head, Experimental Embryology Section, Laboratory of Vision Research, NEI, has been elected president of the NIH/NIMH Chapter of the Federal Professional Association.

Others elected to offices were: Dr. George J. Cosmides, NIGMS, president-elect; Marie C. Gardner, NCI, secretary, and Dr. Harold Davidson, DRG, treasurer.

## 2 Grantees From Japan Receive Academic Honors

A National Institute of Arthritis and Metabolic Diseases' grantee will be one of two winners to receive the Imperial Award, Japan's highest academic honor.

The grantee, Dr. Setsuro Ebashi, is a professor at Tokyo University whose work on the molecular mechanisms of muscle relaxation has been supported by NIAMD for 9 years.

Dr. Kozo Okamoto, a National Heart and Lung Institute grantee, will be among the scholars receiving a Japan Academy prize. Dr. Okamoto, who is studying diabetes and spontaneous hypertension in rodents, is a professor at Kyoto University.

Research Grants. Prior to his present position, he was assistant to the Associate Director for Administration.

Mr. Jarboe is a graduate of the University of Maryland and a veteran of the U.S. Air Force.



Participating in a "Report to the Nation" on cardiovascular diseases on World Health Day, April 7, were (from left): Dr. Paul N. Yu, president-elect, American Heart Association; Dr. Samuel M. Fox, III, president, American College of Cardiology; Dr. David Boyd, president, American College of Chest Physicians; Dr. Harriet P. Dustan, vice chairman, Cleveland Clinic's Research Division; Dr. Michael DeBakey,

president and chairman, Department of Surgery, Baylor College of Medicine; Dr. Forrest Adams, past president, American College of Cardiology; Dr. Theodore Cooper, Director, NHLI, and Dr. Campbell Moses, medical director, AHA. The news conference followed the dedication of an HEW exhibit on world health and heart disease in the Museum of History and Technology at the Smithsonian.